

Virginia Department Of Transportation

Barrier Voting Summary Worksheet USER GUIDE

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(Version 1.0)

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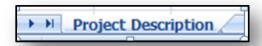
1.0 Purpose

This user guide explains how to understand and use VDOT's Barrier Voting Summary Worksheet. It is required to make the final reasonableness determination for all proposed noise barriers on all applicable Type I federal-aid highway projects in Virginia. The outline and requirements of the barrier survey addendum report can be located in VDOT's Noise Report Guidance Document and Accountability Checklist and Section 13.1 of VDOT's Highway Traffic Noise Impact Analysis Guidance Manual. This worksheet must be completed for each barrier (system) and each worksheet (.xlsm format) must be submitted for review along with the addendum report. A PDF printout of the output for the first and second mailing (if necessary) must also be included in the Noise Barrier Survey Addendum Report.

2.0 Barrier Voting Summary Worksheet

This guide provides a walkthrough for Version 1.0 of the Barrier Voting Summary Worksheet. The user guide also includes several examples which illustrate how to use and understand the worksheet.

2.1 The "Project Description" Tab



STEP 1 - Fill out the UPC, Project Number, and Barrier Name and it will populate throughout the rest of the workbook.

UPC	xxxxxx
Project Number	xxxx-xxx
Barrier Name	X

2.2 The "Input Number of Letters Sent" Tab



This tab is used to track the number of letters that are sent out. Definitions of the column headings are shown below:

- An "Owner and Resident" refers to a homeowner that lives at the physical address that the letter is sent.
- The "Apartment Complexes/Rental Properties" are renters that do not own the property.
- The "Non-Resident Owner" column requires more information and can be illustrated by an example that consists of an apartment complex (NAC B) of 50 residences (all impacted and benefited). One letter should be sent to the "Non-Resident Owner," and 50 letters should be sent out to each benefited renter. However, the owner's vote counts for each of the residential units (all 50 units in this example).

NOTE: The fields will turn red, indicating an error, when an incorrect number of letters are sent out between non-resident owners and renters.

STEP 2 – Fill out the number of letters sent out.

Example #1

• One apartment complex (25 renters, impacted and benefited).

This scenario is input as shown below:

Total Number of Representative Responses Sent							
	Owner and Resident	Non-Resid	ent Owner	Apartment Complexes / Rental Properties			
NAC CATEGORY	Number of Letters Sent to Owners	Number of Letters Sent to Owners Number of Residences Represented by Letters sent to Non- Resident Owners		Number of Letters Sent to Renters (if known)			
В		1 25		25			
В							
		Non-Resid	ent Owner				
NAC CATEGORY		Number of Letters Sent to Owners	Number of Facilites Represented by Letters sent to Non- Resident Owners				
С							

A total of 26 letters should be sent out for this scenario.

ERROR CHECK

NOTE: An error occurs when letters are not sent to both the renters and the owner (non-resident): (As shown below)

	Total Number of Representative Responses Sent						
	Owner and Resident Non-Resid		lent Owner	Apartment Complexes / Rental Properties			
CATEGORY	Number of Letters Sent to Owners Numb		Number of Residences Represented by Letters sent to Non- Resident Owners	Number of Letters Sent to Renters (if known)			
В				25			
В							
		Non Bosis	lant Owner				

ERROR CHECK

NOTE: An error occurs when letters are only sent to the owner (non-resident), but not the renters: (As shown below)

	Total Number of Representative Responses Sent							
	Owner and Resident	Non-Resid	ent Owner	Apartment Complexes / Rental Properties				
ATEGORY	Number of Letters Sent to Owners	Number of Letters Sent to Owners	Number of Residences Represented by Letters sent to Non- Resident Owners	Number of Letters Sent to Renters (if known)				
В		1	25					
В								
		Non-Resid	ent Owner					
ATEGORY		Number of Letters Sent to Owners	Number of Facilites Represented by Letters sent to Non- Resident Owners					
С								

Example #2

- One apartment complex (25 renters, impacted and benefited).
- Five single family homes that are rentals (impacted and benefited).

Table should now look like:

Total Number of Representative Responses Sent							
Owner and Resident	Non-Resid	ent Owner	Apartment Complexes / Rental Properties				
Number of Letters Sent to Owners	Number of Letters Sent to Owners	Number of Residences Represented by Letters sent to Non- Resident Owners	Number of Letters Sent to Renters (if known)				
	6	30	30				
		Number of Letters Sent to Owners Number of Letters	Number of Letters Sent to Owners Number of Letters Sent to Owners Number of Letters Represented by Letters sent to Non- Resident Owners				

A total of **36** letters should be sent out for this scenario.

ERROR CHECK

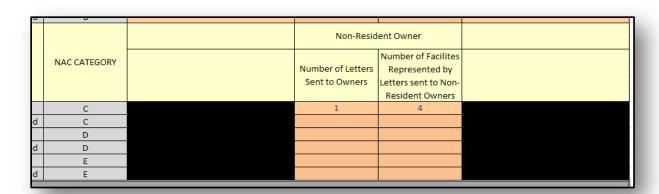
NOTE: The worksheet will also give an error when the letters sent to the owners (non-resident) are greater than the number of renters: (As shown below)

Total Number of Representa	tive Responses Sen	t		
Owner and Resident Non-Resident Owner		Apartment Complexes / Rental Properties		
Number of Letters Sent to Owners	Number of Letters Sent to Owners	Number of Residences Represented by Letters sent to Non- Resident Owners	Number of Letters Sent to Renters (if known)	
	6	9	5	
	Owner and Resident	Owner and Resident Non-Resident Non-Resident Number of Letters Sent to Owners	Number of Letters Sent to Owners Number of Letters Sent to Owners Number of Letters Residences Represented by Letters sent to Non-	

All of these rules (error checks) are evaluated for when dealing with NAC C, D, and E sites.

Example #3

• One HOA (Home Owner Association) for a townhome community represents a playground, pool, tennis court, and basketball court (all are impacted and benefited). This would be represented as:

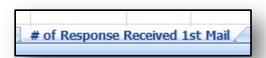


Only **one** letter should be sent out for this scenario.

NOTE: The bottom gray box should always show the total number of letters sent out. (As shown below)

C CATEGORY		Number of Letters Sent to Owners	Number of Facilites Represented by Letters sent to Non- Resident Owners				
С		1	4				
С							
D							
D							
E							
E							
	NOTE: A Total of 1 letters have been sent.						

2.3 The "# of Response Received 1st Mailing" Tab



This tab is where the votes are tallied as the responses are sent back. It is important to note that responses for non-resident owners are multiplied by the number of residences or facilities, as illustrated in the next example.

Example #4

- One Apartment Complex (25 renters, impacted and benefited).
- Ten single family homes (Owner and Renter, impacted and benefited).
- One HOA for a townhome community may represent a playground, pool, tennis court, and basketball court (all are impacted and benefited).

NOTE: Under normal circumstances the "Input Number of Letters Sent" Tab, should be adjusted before tallying votes. However, for this scenario, the votes are tallied without changing the "Input Number of Letters Sent" Tab which still represents Example #3.

After the date for the first mailing has passed, the votes can be tallied. The first response mailing votes are as follows (Example #4):

- The apartment owner (non-resident) votes "yes"
- All 25 renters all vote "no".
- One of the single family homeowners votes "yes".

All other remaining votes remain outstanding. (Summarized below)

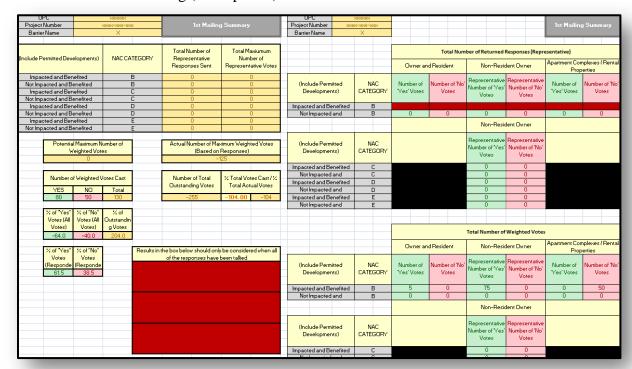
Total	Total Number of Returned Responses (Representative)							
	Owner and	d Resident	Non-Resid	ent Owner	Apartment Complexes / Rental Properties			
.C CATEGORY	Number of 'Yes' Votes	Number of 'No' Votes	Representative Number of 'Yes' Votes	Representative Number of 'No' Votes	Number of 'Yes' Votes	Number of 'No' Votes		
В	1		25			25		
В								
1			Non-Resident Owner					
.C CATEGORY			Representative Number of 'Yes' Votes	Representative Number of 'No' Votes				
С								
С								
D								
D								
E								
E								

The following tab "1st Mailing Summary" shows the results.

2.4 The "# 1st Mailing Summary (Read-Only)" Tab



The results of the 1st Mailing (Example #4) are shown below:



ERROR CHECK

NOTE: The Red boxes indicate errors. These errors appear because when we started Example #4, we never changed the number of letters initially sent out. To remedy these errors,

Go back to the "Input Number of Letters Sent" Tab and fix the number of letters sent out for Example #4 as shown below.

	Owner and Resident	Non-Resident Owner		Apartment Complexes / Rental Properties
NAC CATEGORY	Number of Letters Sent to Owners	Number of Letters Sent to Owners Number of Residences Represented by Letters sent to Non- Resident Owners		Number of Letters Sent to Renters (if known)
В	10	1	25	25
В				
1		Non-Resident Owner Number of Facilites		
NAC CATEGORY		Number of Letters Sent to Owners	Represented by Letters sent to Non-	
			Resident Owners	
С		. 1	4	
С				
D				
D				
E				
E				
	NOTE: A Total of 37 lette	rs have been sen	t.	

A total of 37 letters should have initially been sent out for this scenario (Example #4).

Now go back to the "# 1st Mailing Summary" Tab and view the results of the first mailing efforts.

NOTE: This is the page that should be printed out and submitted with the report.

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UF	PC j	Į	XXXXXX			
Project l	Number		8888-888-888	(1st Mailin	g Summary
Barrier	Name		×			
(Include Pe	(Include Permitted Developments)		NAC CATEGORY		Total Number of Representative Responses Sent	Total Maxiumum Number of Representative Votes
	ted and Ben		E	3	60	300
	acted and B		_	3	0	0
Impac	ited and Ben	efited		<u> </u>	4	20
	acted and Be				0	0
	ted and Ben)	0	0
	acted and B		_)	0	0
	ted and Ben			<u> </u>	0	0
Not Impa	acted and B	enefited		<u> </u>	0	0
		l Maximum N 'eighted Vote 320			(Based or	aximum Weighted Votes n Responses) 195
		f Weighted V			Number of Total Outstanding Votes	% Total Votes Cast / % Total Actual Votes
	YES	NO	Total			
	80	50	130		65	66.67 66.00
	% of "Yes" Votes (All Votes) 41.0	% of "No" Votes (All Votes) 25.6	% of Outstandin g Votes 33.3			
	% of "Yes"	% of "No"		Results in t	the box below should on	ly be considered when all
	Votes	Votes			of the responses have	,
	(Responde	(Responde				
	61.5	38.5			A Second Medice	c Do aviso d
					A Second Mailing i	s Requirea

Based on the responses received from the 1^{st} mailing, the worksheet is recommending that, "A second mailing is required." This decision is based on two conditions:

- The percent (%) of "yes" votes, based on all available votes.
- The percent (%) of outstanding votes.

The worksheet will always make a barrier recommendation based on these criteria for the 1st mailing. The criteria for the second mailing are slightly different.

Since the percent (%) of "yes" votes (based on all available votes) is not 50% or greater (41.0%, in this case,) and the percent of outstanding votes (33.0%) could potentially affect the overall decision of the barrier, a second mailing is required.

NOTE: If the worksheet makes a barrier recommendation based on the first mailing, because the criteria above are satisfied, a second mailing is not required.

2.4 The "# of Response Received 2nd Mail" Tab



If a second mailing is required, this tab should reflect the cumulative number of responses for both mailings.

Using **Example 4** (shown above) we can look at 3 separate scenarios for the second mailing.

Scenario #1

- The results of the 1st mailing. (Example 4)
- The HOA (representing 4 facilities) and 3 single family homeowners vote "yes."

Based on these responses, the "# of Response Received 2nd Mail" tab should look like this (shown below):

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	Owner and Resident		Non-Resid	ent Owner	Apartment Complexes / Rental Properties		
NAC CATEGORY	Number of 'Yes' Votes	Number of 'No' Votes	Representative Number of 'Yes' Votes	Representative Number of 'No' Votes	Number of 'Yes' Votes	Number of 'No Votes	
В	4		25			25	
В							
			Non-Resid	ent Owner			
JAC CATEGORY			Representative Number of 'Yes' Votes	Representative Number of 'No' Votes			
С			4				
С							
D							
D							
E							
E	2-						

2.5 The "2nd Mailing Summary" Tab

2nd Mailing Summary (Read-Only)

Based on the results of the 2nd mailing (Scenario #1), the table should be as follows:

PC]		888888				
Number	83	888-888-8	88	2nd Mailin	g Summary	
Name		X				
(Include Permitted Developments)		NAC CATEGORY		Total Number of Representative Responses Sent	Total Maxiumum Number of Representative Votes	
ed and Be	nefited	E	3	60	300	
cted and f	Benefited	_		0	0	
ed and Be	nefited			4	20	
cted and f	Benefited	(0	0	
ed and Be	nefited	[)	0	0	
cted and f	Benefited	[)	0	0	
			E	0	0	
cted and B	Benefited		E	0	0	
Potential Maximum		Number		Actual Number of I	Maximum Weighted	
of W	'eighted V	/otes		Votes (Based on Responses)		
	320			19	95	
Number	of Weight	ed Votes		Number of Total	% Total Votes	
	Cast			Outstanding	Cast / 1/2 Total	
YES	NO	Total		Votes	Actual Votes	
115	50	165		30	84.62 84	
% of	% of	% of				
"Yes"	"No"	Outstan				
Votes	Votes	ding				
59.0	25.6	15.4				
% of	% of		Resi	ults in the box below	should only be	
"Yes"	"No"				,	
Votes	Votes					
03.1	30.5		The			
				Lonstructi	on	
	ed and Be cted and	Number Name ude Permitted evelopments) ed and Benefited oted and Ben	Number Number Number NAC CA Welopments) Red and Benefited Sed and Benefited	Number XXXX-XXX-XXX Name X Name X Ude Permitted NAC CATEGORY ed and Benefited B ed and Benefited C cted and Benefited C cted and Benefited D cted and Benefited D cted and Benefited E cted and Benefited E cted and Benefited E Potential Maximum Number of Weighted Votes Cast YES NO Total 115 50 165 X of X of X of Yes" NO Outstan Votes Votes Use Yof X of X of Yes" NO Votes Votes Votes Votes	Number	

The barrier recommendation for the 2^{nd} mailing is based the following criterion:

• The percent (%) of "yes" votes, respondents only.

Since the percent (%) of "yes" votes (of the respondents) is 50% or greater (69.7%, in this case), "The Barrier is Recommended for Construction."

Scenario #2:

- The results of the 1st mailing. (Example 4)
- The HOA (representing 4 facilities) and 3 single family homeowners vote "no".
- 2 single family homeowners vote "no".

Based on these responses, the "# of Response Received 2nd Mail" tab should look like this (shown below):

		Owner and	d Resident	Non-Resid	lent Owner	Apartment Complexes / Rental Properties	
	NAC CATEGORY	Number of 'Yes' Votes	Number of 'No' Votes	Representative Number of 'Yes' Votes	Representative Number of 'No' Votes	Number of 'Yes' Votes	Number of 'No Votes
	В	1	2	25			25
d	В						
				Non-Resid	lent Owner		
	NAC CATEGORY			Representative Number of 'Yes' Votes	Representative Number of 'No' Votes		
	С				4		
d	С						
	D						
d	D						
	Ε						
d	E					1	

Based on the results of the 2nd mailing (Scenario #2), the table should be as follows:

U	PC I		888888					
Project Number xxxx-xxx-xx			88	2nd Ma	iling	g Summa	ary	
Barrie	Barrier Name		X					
Ç	(Include Permitted Developments)		NAC CATEGORY		Total Number Representation Responses Se	ve	Represe	per of
Impact	ed and Be	nefited	_	3	60		30	00
Not Impa	icted and B	Benefited	_	3	0		Ü)
Impact	ed and Be	nefited	(4		2	:0
Not Impa	icted and f	Benefited	(0	0		()
	ed and Be)	0)
Not Impa	icted and B	Benefited)	0		()
	ed and Be			E	0		()
Not Impa	icted and B	Benefited		Ε	0		()
	Potentia	Maximum	Number		Actual Number	r of N	1aximum V	/eighted
	of W	eighted V	otes		Votes (Based on Responses)			nses)
		320			195			
	Number	of Weight	ed Votes		Number of To	tal	% Tota	l Votes
	1	Cast			Outstanding		Cast / % Total	
	YES	NO	Total		Votes		Actual	Votes
	80	80	160		35		82.05	82
	% of	% of	% of					
	"Yes"	"No"	Outstan					
	Votes	Votes	ding					
	41.0	41.0	17.9					
	71.0	71.0	11.0					
	% of	% of		Res	ults in the box be	alow	should on	lube
	"Yes"	"No"			ed when all of th			· .
	Votes	Votes		COLIDIGE	ca internalional		,porises 11	are been
	50.0	50.0						
	50.0	50.0		The	Barrier Is Re	соп	mended	lfor
					Constru	ucti	on	

Since the percent (%) of "yes" votes (of the respondents) is 50% or greater (50.0%, in this case), "The Barrier is Recommended for Construction."

Scenario #3

- The results of the 1^{st} mailing. (Example 4)
- The HOA (representing 4 facilities) and 3 single family homeowners vote "no".
- 4 single family homeowners vote "no".

Based on these responses, the "# of Response Received 2^{nd} Mail" tab should look like this (shown below):

NAC CATEGORY	Owner an	d Resident	Non-Resid	ent Owner	107	plexes / Rental erties
	Number of 'Yes' Votes	Number of 'No' Votes	Representative Number of 'Yes' Votes	Representative Number of 'No' Votes	Number of 'Yes' Votes	Number of 'No Votes
В	1	4	25			25
В			(
			Non-Resident Owner			
NAC CATEGORY			Representative Number of 'Yes' Votes	Representative Number of 'No' Votes		
С				4		
С						
D						
D						
E						
E						

Based on the results of the 2nd mailing (Scenario #2), the table should be as follows:

U	PC .	I	888888			
Project	Project Number xxxx-xxx-xx			88	2nd Mailin	g Summary
	r Name		X			
Ç	(Include Permitted Developments)			TEGORY	Total Number of Representative Responses Sent	Total Maxiumum Number of Representative Votes
Impact	ed and Be	enefited	E	3	60	300
Not Impa	icted and f	Benefited	E	3	0	0
Impact	ed and Be	enefited			4	20
Not Impa	cted and f	Benefited	(3	0	0
Impact	ed and Be	enefited	[)	0	0
_	icted and l		[)	0	0
_	ed and Be			Ε	0	0
Not Impa	icted and f	Benefited		Ε	0	0
			Maximum Number eighted Votes			Maximum Weighted on Responses)
		320				95
	Number	of Weight	ed Votes		Number of Total	% Total Votes
		Cast			Outstanding	Cast / % Total
	YES	NO	Total		Votes	Actual Votes
	80	90	170		25	87.18 87
	- 00	- 55				01110
	% of	% of	% of			
	"Yes"	"No"	Outstan			
	Votes	Votes	ding			
	41.0	46.2	12.8			
			.2.0			
	% of	% of		Res	ults in the box below	should only be
	"Yes"	"No"			ed when all of the re	
	Votes	Votes				
	47.1	52.9		The B	arrier Is Not Rec	ommended for
	41.1	32.3			struction and Sh	
					Included in the	
					moldaea III tile	. 1 10/15

Since the percent (%) of "no" votes (of the respondents) is greater than 50% (52.9%, in this case), "The Barrier is not Recommended for Construction and Should Not be Included in the Plans."

This worksheet can also be used to evaluate special circumstances which can occur.

Example #5

• Ten single family homeowners (all impacted and benefited).

Letters are sent out to all 10 owners (as shown below):

	Total Number of Representative Responses Sent							
	Owner and Resident	Non-Resid	ent Owner	Apartment Complexes / Rental Properties				
ATEGORY	Number of Letters Sent to Owners	Number of Letters Sent to Owners Number of Residences Represented by Letters sent to Non- Resident Owners		Number of Letters Sent to Renters (if known)				
В	10							
В								

After the after the initial response date has passed and the votes are tallied, the responses are as follows:

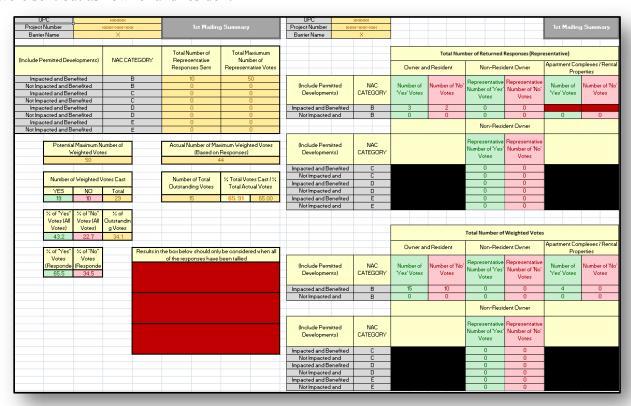
- 3 single family homeowners vote "yes".
- 2 single family homeowners vote "no".
- 2 responses that were sent out as "owner and resident" are returned with the **renter checkbox checked** and also voted "yes".

Question: How to handle this situation with the worksheet, and do the owners of the rentals need to be contacted?

The first step is to enter the votes cast as follows:

Tota	Total Number of Returned Responses (Representative)									
	Owner and	d Resident	Non-Resid	ent Owner	Apartment Complexes / Rental Properties					
ATEGORY	Number of 'Yes' Votes	Number of 'No' Votes	Representative Number of 'Yes' Votes	Representative Number of 'No' Votes	Number of 'Yes' Votes	Number of 'No' Votes				
В	3	2			2					
В										
			Non-Resid	ent Owner						
ATEGORY				Representative Number of 'No' Votes						
С										
С										
D										
D										
E										
F										

As expected, the "1st Mailing Summary" Tab shows an error because the letters to the renters were sent out as "owner and resident"



In order to fix this, go back to the letter input tab and change these changes as follows:

	Total Number of Representative Responses Sent							
	Owner and Resident	Non-Resid	ent Owner	Apartment Complexes / Rental Properties				
ATEGORY	Number of Letters Sent to Owners	Number of Letters Sent to Owners	Number of Residences Represented by Letters sent to Non- Resident Owners	Number of Letters Sent to Renters (if known)				
В	8			2				
В								
		Non-Resid	ent Owner					
ATEGORY		Number of Letters Sent to Owners	Number of Facilites Represented by Letters sent to Non- Resident Owners					
С								
С								
D								
D								
E								
E								
NOTE: A Total of 10 letters have been sent.								

In order to remove the error we need to account for sending out the letters to the owners of the rental properties.

	Total Number of Representative Responses Sent								
	Owner and Resident	Non-Resid	ent Owner	Apartment Complexes / Rental Properties					
ATEGORY	Number of Letters Sent to Owners	Number of Letters Sent to Owners	Number of Residences Represented by Letters sent to Non- Resident Owners	Number of Letters Sent to Renters (if known)					
В	8	2	2	2					
В									
ATEGORY		Number of Letters Sent to Owners	Number of Facilites Represented by Letters sent to Non- Resident Owners						
С									
С									
D									
D									
E									
E									
	NOTE: A Total of 12 letters have been sent.								

Based on this change, the "1st Mailing Summary" tab is shown below:

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U	PC j	Į	888888			
Project	Number	****-***			1st Mailin	g Summary
Barrie	r Name		×			
(Include P	(Include Permitted Developments)		elopments) NAC CATEGO		Total Number of Representative Responses Sent	Total Maxiumum Number of Representative Votes
Impac	cted and Ben	efited	E	В	12	60
Not Imp	acted and B	enefited		В	0	0
	cted and Ben				0	0
	acted and B			<u> </u>	0	0
	cted and Ben			<u> </u>	0	0
	acted and B			<u> </u>	0	0
	cted and Ben			<u> </u>	0	0
Not Imp	acted and B	enefited		<u>E</u>	0	0
	1	l Maximum N				ximum Weighted Votes
	W	eighted Vot	es			Responses)
		60				54
	Number of Weighted Votes Cast			Number of Total Outstanding Votes	% Total Votes Cast / % Total Actual Votes	
	YES	NO	Total		Catoraliang Fotos	
	19	10	29		25	53.70 53.00
	% of "Yes"	% of "No"	% of			
	Votes (All	Votes (All	Outstandin			
	Votes)	Votes)	g Votes			
	35.2	18.5	46.3			
	% of "Yes"	% of "No"		Results in I		y be considered when all
	Votes	Votes			of the responses have	been tallied
	(Responde	_				
	65.5	34.5			A Second Mailing is	Required
					H Second Flaming is	riequireu

Since the percent (%) of "yes" votes (based on all available votes) is not 50% or greater (35.2%, in this case,) and the percent of outstanding votes (46.3%) could potentially affect the overall decision of the barrier, **a second mailing is required**. The owners of the rental homes must be contacted.

3.0 Extenuating Circumstances

When extenuating circumstances arise that require unusual or unique considerations be made that are not explicitly covered by these guidelines, project-level decisions will be made in accordance with the spirit of the FHWA regulations and the VDOT guidelines. It is imperative that these decisions be made collaboratively by VDOT, the environmental consultant responsible for the noise analysis, and the FHWA Division office staff. Unusual and unique circumstances will be considered on an individual project basis and the decision-making process must be fully documented in the noise technical report.

Any questions should be directed to VDOT's Central Office Noise Staff.

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